

Notice of Allowability

Application No.

10/716,193

Examiner

Demetrius R. Pretlow

Applicant(s)

DYK ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed March 6, 2006.
2. ☒ The allowed claim(s) is/are 1-15 and 26-36.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413), Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date <u>3/6/2006</u> | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

This application is in condition for allowance except for the presence of claims 16-23 directed to inventions non-elected without traverse. Accordingly, claims 16-23 have been cancelled.

Allowable Subject Matter

Claims 1-15 and 26-36 are allowed.

The best prior art of record , particularly Eryurek et al. (US 2004/0186927) teach a process control system uses an asset optimization reporter to collect status information pertaining to the assets of a process plant from various data sources of the plant. However Eryurek et al. does not teach the following claim limitations.

The primary reason for the allowance of claims 1-8 is the inclusion of the method steps of obtaining, from an asset management application, operating information about at least one of the plurality of instrumented function components; determining a probability of failure on demand for the safety instrumented function based at least in part on the operating information; comparing the probability of failure on demand with a desired probability of failure on demand for the safety instrumented function to establish a variance; and managing the plurality of instrumented function components based on the variance. It is these step found in each of the claims, as it is **claimed in the combination**, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

The primary reason for the allowance of claims 9-15 is the inclusion of the limitations of an online safety integrity level application in communication with the asset management application wherein the online safety integrity level application is configured to receive the status information and calculate a probability of failure on demand for the safety instrumented function based at least in part on the status information. It is these limitations found in each of the claims, as they are **claimed in the combination**, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

The primary reason for the allowance of claim 26 is the inclusion of the limitations of an obtaining from an asset management applications operating information about at least one of the plurality of instrumented function components; determining a probability of failure on demand for the instrumented function based at least in part on the operating information; and generating the safety availability information based on the probability of failure wherein the operating information includes an indication that at least one of the plurality of instrumented function components has been replaced, and wherein the computer executable code includes instructions for resetting a time since a last test for the at least one of the plurality of instrumented function components in response to the indication. It is these limitations found in each of the claims, as they are **claimed in the combination**, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

The primary reason for the allowance of claims 27,28 and 31-36 is the inclusion of the limitations of an obtaining from an asset management applications operating

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information about at least one of the plurality of instrumented function components; determining a probability of failure on demand for the instrumented function based at least in part on the operating information; and generating the safety availability information based on the probability of failure wherein the determining includes: determining a probability of failure on demand for each of the a plurality of instrumented function components thereby generating a plurality of probability on demand values; and calculating the probability of failure on demand for the instrumented function based on the plurality of probability on demand values. It is these limitations found in each of the claims, as they are **claimed in the combination**, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

The primary reason for the allowance of claims 29 is the inclusion of the limitations of an obtaining from an asset management application operating information about at least one of the plurality of instrumented function components determining a probability of failure on demand for the instrumented function based at least in part on the operating information; and generating the safety availability information based on the probability of failure on demand; wherein the probability of failure on demand is an average probability of failure on demand. It is these limitations found in each of the claims, as they are **claimed in the combination**, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

The primary reason for the allowance of claim 30 is the inclusion of the limitations of an obtaining from an asset management applications operating information about at least one of the plurality of instrumented function components; determining a probability of failure on demand for the instrumented function based at least in part on the operating information; and generating the safety availability information based on the probability of failure on demand; wherein the obtaining operating information comprises obtaining a test completion time for the at least one of the plurality of instrumented function components. It is these limitations found in each of the claims, as they are **claimed in the combination**, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Demetrius R. Pretlow whose telephone number is (571) 272-2278. The examiner can normally be reached on Mon.-Fri. 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Demetrius R. Pretlow

Demetrius Pretlow 5/16/06

Patent Examiner

BRYAN BUI
PRIMARY EXAMINER

